

REMARKS

Claim 3 has been amended to make a correction based on the disclosure at page 13, line 24 to page 14, line 4 in the specification. Claim 8 has been added based on the disclosure at page 15, line 22 to page 16, line 5 in the specification.

Entry of the above amendment is respectfully requested.

Information Disclosure Statement filed October 5, 2006

Applicants thank the Examiner for considering the Information Disclosure Statements filed April 21, 2005 and June 22, 2005, and returning initialed copies of the PTO/SB/08 forms with the Office Action of October 5, 2006. Applicants note that an Information Disclosure Statement and a Statement under 37 C.F.R. 1.97(e) were filed on October 5, 2006, the day the present Office Action was issued. Applicants respectfully request that the Examiner consider the disclosed information and return an initialed copy of the PTO/SB/08 form with the next communication from the PTO.

Anticipation Rejection

On page 2 of the Office Action, in paragraph 2, claims 1-5 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Hiramoto et al. (USPN 6,745,540).

With respect to claims 1 to 5, the Examiner asserts that "*Hiramoto et al. discloses a bag-making method comprising: a preliminary heating step (142) using radiation including softening of a mouth member (S), having a length of at least .5 mm, at a part (f) to be melt-bonded to a bag unit (W) while element (29) prevents an end part to be positioned within the bag unit (W) from being softened (column 14 lines 25-32); and a melt-bonding step (147) of*

inserting the preliminarily heated mouth member (S) into the opening of the bag unit (W) and pressing them by a sealing mold (column 15 lines 37-44)."

However, Applicants submit that Hiramoto et al. does not disclose the bag-making method claimed in claims 1 to 5 because the Examiner's interpretation of Hiramoto et al. as presented above is incorrect in part.

The essential technical feature of the invention claimed in claim 1 and claims 2 to 5 indeed refers to "preventing the synthetic resin of the mouth member at the end part in the bag side, which is an end part of mouth member, from being softened" at the preliminary heating step **before the melt-bonding step** of integrating the mouth member and the bag unit, as recited in claim 1. It is evident in claim 1 that the melt-bonding step should be conducted within an appropriate period after the preliminary heating step is conducted, and until the effects of the preliminary heating are reduced, as recited in lines 2 to 9 on page 16 of the present specification, although the length of the time period depends on the materials used for the mouth member and the bag unit, heating conditions in the preliminary heating and melt-bonding steps, and the like.

On the other hand, Hiramoto et al. disclose a spout sealing apparatus equipped mainly with a temporary-sealing apparatus and main-sealing apparatus. That is, it can be understood that the sealing process including a temporal sealing step and a main sealing step is disclosed.

At this point, in Hiramoto et al., the pre-heating device 142 described in column 14 refers to one embodiment of the temporary-sealing apparatus 4 including the preheating device in the vicinity of it, and therefore, it can be understood that the pre-heating device 142 (preheating step) is conducted just before the temporary-sealing process, not for the main-sealing

process. Also, it is clear that the temporary-sealing apparatus 147 is another embodiment of the temporary-sealing apparatus, and not the main-sealing apparatus.

The Examiner seems to have the misconception that the process involving the preheating device 142 is conducted before that involving the temporary-sealing apparatus 147. However, it is not intended that the spout or the bag is processed at pre-heating device 142 ahead of the temporary-sealing apparatus 147 because the pre-heating device 142 is a part of the embodiment of the temporary-sealing apparatus 4, and the temporary-sealing apparatuses 4 and 147 are separate examples of the temporary-sealing, as explained above. In addition, in the embodiment of the temporary-sealing apparatus 147, there are no examples equipped with a pre-heating device.

Also, the Examiner states, as described above, that element (29) prevents an end part to be positioned within the bag unit (W) from being softened as is set forth in column 14 lines 25-32. However, Applicants submit that the Examiner's position is based on a misinterpretation of the disclosure at issue.

In column 14, lines 25 to 32, it is disclosed that:

"Furthermore, in this example, the sealing portions f of a given spout S, and then the sealing portions of the bag following the fitting of the bag over the spout S, are pre-heated; however, it would also be possible to heat only the sealing portions of the spouts or the sealing portions of the bags."

This disclosure only tells that both sealing portions f of the spout S, and sealing portions of the bag are principally pre-heated, although an embodiment would be acceptable in which either sealing portions f of spout S or the sealing portions of the bag are pre-heated. There is no disclosure in Hiramoto et al. that the spout holding member 29 **prevents** an end part to be positioned within the bag unit (W) **from being softened**. It is only disclosed that the spout holding member 29 functions for just holding the spout placed therein, and moving it to processing units of the apparatus.

Furthermore, the melt bonding step of the present invention cannot be substituted with the temporal sealing of the spout to the bag by the temporal-sealing apparatuses 4 or 147 of Hiramoto et al. In the preamble of present claim 1, the claimed bag-making method is specified by reciting "for producing a bag by melt-bonding and thereby integrating a mouth member formed of a preliminary heated synthetic resin and a bag unit formed of a flexible film". That is, the melt-bonding step results in **integrating** the mouth member and the bag unit to such a degree that the integrated bags are ready to use.

In fact, the spout and/or bag are pre-heated by the device 142 before they are temporarily sealed in the temporary-sealing apparatus 4. More specifically, after the spout and/or bag are preheated therein, they are temporarily sealed with the temporary-sealing portions 125 of the rotating sealing body 121 to which the heat is transmitted from the heating block 123 present in the temporary-sealing apparatus 4, as described in column 12, lines 53 to 67. Regarding the sealing portions f of the spout, it is disclosed that "only one side of the sealing portions f of each spout is temporarily sealed to the corresponding bag; however, it would also be possible to perform temporary sealing of both sides". This means that the sealing process is just temporal as it may be partial sealing, and cannot be the melt-bonding step of integrating them.

Also, in the temporal-sealing apparatus 147, the above-presented analysis can be applied to the heated sealing rollers 148, which seal bags fitted over the spouts held at the spout holding member 29.

Specifically, in the melt-bonding step of the present invention, the preliminarily heated mouth member and the bag unit are integrated by using a sealing mold. With regard to this sealing

mold, conditions such as temperature, the melt-bonding time, and the time period after the preliminary heating until pressing by the sealing mold are specifically described from the last paragraph on page 15 to page 16 of the present specification (see also the above-presented claim 8), although the conditions will vary depending on the materials used for the mouth member or the bag, the shapes of them, or the like, and therefore, the presented conditions refer to preferred embodiments of the present invention.

At this point, Hiramoto et al. do not disclose such a melt-bonding step of the spout and the bag unit, which takes place in an appropriate period after the preliminary heating step. They just provide an example of the **temporal-sealing** apparatus (147) which is equipped with the pre-heating device wherein the sealing portions of the spout and/or the bag may be pre-heated, and there is no suggestion or implication that the end part of the spout should not be heated during the pre-heating process.

Thus, Applicants submit that the invention as presently claimed is not anticipated by (or obvious over) Hiramoto et al. Accordingly, withdrawal of this rejection is respectfully requested.

Obviousness Rejection

On page 3 of the Office Action, in paragraph 4, claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hiramoto et al. (USPN 6,745,540) in view of Fang et al. (USPN 4,192,907).

In response, Applicants submit that claim 6 is not obvious the cited art at least because claim 1, the claim upon which claim 6 depends, is not obvious over Hiramoto et al. as discussed above and Fang et al. does not make up for the deficiencies of Hiramoto et al. In this regard, Applicants submit

that it is impossible to reach the invention claimed in claim 6 by modifying the disclosure of Hiramoto et al. to include the air evacuation step during heat sealing in view of Fang et al.

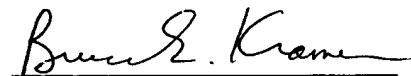
Consequently, Applicants submit that claim 6 is not obvious over the cited art, and withdrawal of this rejection is respectfully requested.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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Date: January 5, 2007